ಬೆವಿಕಂ
BESCOM

ಬೆಂಗಳೂರು ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿ ನಿಯಮಿತ

Bangalore Electricity Supply Company Limited

(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸಂಪೂರ್ಣ ಸ್ವಾಮ್ಯಕ್ಕೆ ಒಳಪಟ್ಟಿದೆ)

No: BESCOM/GM(P)/DGM(P)/AGMP1/BC-10/2023-24/7722

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Azadi Ka Amrit Mahotsav

O/o The General Manager,
Procurement Section, Corporate Office, 4th Floor, BESCOM,
K.R. Circle, Bengaluru-560 001
Date: 01 FEB 2024

Clarifications for the queries raised for the tender invited for Replacement of existing HT & LT Overhead line by HT UG cable & LT UG/AB cable of Hosakote New Town feeders in Hosakote Sub-Division of Hosakote Division.

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The prospective Bidder has submitted the queries during pre-bid meeting and the clarifications for the queries raised w.r.t the tender documents are as follows:

Sl. No	Queries raised by the prospective bidders	Qualifying requirements per tender documents	Clarification/Amendment to be issued
1	The Contractor shall warrant that the Equipment supplied by him will be new, unused and in accordance with the Contract Documents and free from defects in Material and Workmanship for a period of **Sixty Months (60) Months in respect of, Rabbit/Coyote ACSR Conductor, UG Cable, AB Cable, RMUs** and 12 (Twelve) months for all other equipment's/materials of the work commencing immediately upon the satisfactory commissioning	**Sec-iii GCC Clause-15.1** The Contractor shall warrant that the Equipment supplied by him will be new, unused and in accordance with the Contract Documents and free from defects in Material and Workmanship for a period of **Sixty Months (60) Months in respect of, Insulators, Rabbit/Coyote ACSR Conductor, UG Cable, AB Cable, RMUs, GOS** and 12 (Twelve) months for all other equipment's/materials of the work commencing immediately upon the satisfactory commissioning as per BESCOM OM No. GM(QS&S)/DGM(El.,)-3)/BC-11/19-20/CYS-12 Date:29.04.2019.	Tender Conditions prevails.

Sl. No	Queries raised by the prospective bidders	Qualifying requirements per tender documents	Clarification/Amendment to be issued
2	If it, becomes necessary for the Contractor to replace or renew any defective portions of the Works, the provision of this Clause shall apply to portion of the Works so replaced or renewed until the expiry of **Sixty Months (60) Months in respect of Rabbit/ Coyote ACSR Conductor, UG Cable, AB Cable** and 12 (Twelve) months for all other equipment's/ materials of the work from the date of such replacement or renewal.	**Sec-iii GCC Clause-15.3** If it, becomes necessary for the Contractor to replace or renew any defective portions of the Works, the provision of this Clause shall apply to portion of the Works so replaced or renewed until the expiry of **Sixty Months (60) Months in respect of Insulators, Rabbit/ Coyote ACSR Conductor, UG Cable, AB Cable, RMUs, GOS** and 12 (Twelve) months for all other equipment's/materials of the work from the date of such replacement or renewal.	Tender Conditions prevails.
3	3 Core 11 kV HT cable technical specification, clause 8.03.00 it is mentioned as "The metallic screen with Armour shall be designed to carry the short circuit rating for 1 second', but no short circuit current is given for copper screen and armour.		The specifications have been attached.

General Manager (Ele.,)
Procurement, BESCOM.

BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED

(Wholly owned by Government of Karnataka Undertaking)

CALCULATION OF SHORT CIRCUIT RATING FOR CONDUCTOR CU TAPE & ARMOUR

6.35/11kv (E) x 3c X400 Sq.mm A2XWY Cable

SHORT CIRCUIT RATING FOR CONDUCTOR

Short circuit current Ish		=KA/√t
Where	Ish	:Short Circuit Rating in KA
	K	:0.0944 for Aluminium conductor (XLPE insulated)
	A	:Area of Aluminium Conductor
	t	:Duration of short circuit in seconds (1 Second)
Thus	Ish	=0.0944x400/√1
		=37.76KA for 1 Sec.Duration

SHORT CIRCUIT RATING FOR COPPER TAPE

Short circuit current Ish		=KA/√t
Where	Ish	:Short Circuit Rating in KA
	K	:0.1283 for Copper Tape
	A	:Area of Copper Tape per Core=50x0.045=2.25 Sq.mm
		:Area of Copper Tape (Three cores together)=2.25x3=6.75 Sq.mm
	t	:Duration of short circuit in seconds (1 Second)
Thus	Ish	=0.1283x6.75/SQRT(1)
		=0.866 for 1 Sec (All three cores together)

SHORT CIRCUIT RATING FOR ARMOUR

Short circuit current Ish		=KA/√t
Where	Ish	:Short Circuit Rating in KA
	K	:0.0464 for G.S Wire
	A	:Area of G.S Wire
		:Area of G.S Wire Armour
	t	:Duration of short circuit in seconds (1 Second)
SIZE (Nom.Diameter)		:4.0mm +/- 0.1 mm
No. of ARMOUR WIRES		:51
Total Area of Wires		:609.24 Sq.mm
	Ish	=0.0464x609.24/√1
		=28.26 KA for 1 Sec

25/1/24

General Manager (El.)
Quality Standards and Safety,
BESCOM